

**Fermilab  
FY2002 Self-assessment  
Process Assessment Report  
For  
Technical Division**

**27-Sep-2002**

Division/Section performing assessment

Technical Division

Name of organization that owns assessed process

Technical Division

Organization Strategy

Safety is central to everything the Technical Division does. Part of the overall Technical Division Occupational Injury and Illness Reduction Program is to conduct OSHA-type facility inspections. Finding and correcting safety violations supports the effectiveness of the safety systems. Ensuring that the physical plant is free from safety hazards helps the Division in the long run succeed in being a world-class organization in the field of HEP.

Names of Personnel on Assessment team

Richard Ruthe, TD Senior Safety Officer  
Jamie Blowers, Quality Assurance Officer

Name of process assessed

Occupational Injury and Illness Reduction Program, OSHA-Type Inspections

Brief description of process to be assessed

OSHA-type inspections are an internal self-assessment tool that is but one component of the Technical Division's integrated Occupational Injury and Illness Reduction Program. When the program was first developed, a team of inspectors was identified and given 30-hour OSHA compliance training. The inspectors are hourly personnel from the production departments within the TD. Each calendar quarter the inspectors are assigned a building or work area to inspect that is not within their own Department. The inspector, usually accompanied by the Building Manager, looks for OSHA violations and records any violations that they discover on the *Technical Division Self Assessment Program Quarterly Inspection Form*. The inspector and the Building Manager sign the

form and forward it to the TD ES&H Group, where it is reviewed and any serious violations duly noted. The inspection is then entered into ESHTRK, and any violation found during the inspection is entered as an Open Finding. Each Open Finding is assigned to an appropriate individual for action, usually the Department Head for the area. The Open Findings are closed in ESHTRK as they are corrected.

Are metrics associated with this process? If so, what are they?

There are no contractual metrics associated with this process. The only internal metric is the completion of the assigned inspection by the end of the quarter.

What are the names of the procedures associated with this process?

TD Self-Assessment Program TD-2020

Are these procedures being followed? Are they current?

The procedures are being followed, and are current.

Describe the methodology used to assess this process.

The methodology used to assess the process consisted of reviewing the available documentation (TD policy TD-2020), interviewing TD ES&H Group personnel involved with coordinating the inspection assignments, and reviewing the *Technical Division Self Assessment Program Quarterly Inspection Forms* and other associated documents that are returned by the inspectors.

Results of the assessment:

Overall the implementation of OSHA-type inspections within Technical Division is rated **excellent**. The inspector assignments are consistently sent out well in advance of the end of the quarter, and the inspectors are returning the required forms before the end of the quarter deadline. The reports are then being reviewed by the TD ES&H Group and entered into ESHTRK in a timely manner. Some concern was raised that the inspectors were not being thorough because many of the inspection forms indicated that there were "No Apparent Violations". After a discussion with a number of the inspectors, it was learned that many minor violations were being corrected on the spot at the time of their discovery. These minor violations were not being recorded on the form because they were immediately corrected. The TD SSO subsequently sent out a memo to the inspectors informing them that henceforth, minor violations that are found and immediately corrected should be indicated as such on the inspection form. The memo also stated that these types of minor violations, i.e. those that could be immediately corrected, would not be entered into ESHTRK.

Identified opportunities for improvement

Not applicable.

Schedule for implementation of improvements

Not applicable.

Status of improvements from previous assessment

Not applicable.

Attachments (supporting data, worksheets, reports, etc.)

The following attachments are incorporated into this report:

- (1) An example of the information that is sent out to each inspector. The attached package of information happens to be for a Development and Test Department area, includes:
  - *Technical Division Quarterly Review Information Form for Self-Assessment Inspections*
  - *Technical Division Self-Assessment Program Quarterly ES&H Inspection Verification Form Inspection Area DT*
  - *Technical Division Self Assessment Program Quarterly Inspection Form*
- (2) Memorandum from Rich Ruthe dated May 31, 2002 to the OSHA inspectors regarding the recording of violations that are corrected on the spot.
- (3) TD Self-Assessment Program TD-2020.

# Technical Division

## Quarterly Review Information Form for Self-Assessment Inspections

REVIEW ID#:

24279

### Title

Choose one from the list below and enter exactly as it is shown. Machine Shop monthly inspection - choose the last Machine Shop box, enter month using 2 digit number (01 = January) in the blank.

#### Development and Test

- ☐ TD/SAP Inspection DT 02 Quarter 1
- ☒ TD/SAP Inspection DT 02 Quarter 2
- ☐ TD/SAP Inspection DT 02 Quarter 3
- ☐ TD/SAP Inspection DT 02 Quarter 4
- ☐ TD/SAP Inspection DT 02 Special

#### Machine Shop

- ☐ TD/SAP Inspection MS 02 Quarter 1
- ☐ TD/SAP Inspection MS 02 Quarter 2
- ☐ TD/SAP Inspection MS 02 Quarter 3
- ☐ TD/SAP Inspection MS 02 Quarter 4
- ☐ TD/SAP Inspection MS 02 Special
- ☐ TD/SAP Inspection MS 02 Month\_\_\_\_\_

#### Engineering and Fabrication

- ☐ TD/SAP Inspection EF 02 Quarter 1
- ☐ TD/SAP Inspection EF 02 Quarter 2
- ☐ TD/SAP Inspection EF 02 Quarter 3
- ☐ TD/SAP Inspection EF 02 Quarter 4
- ☐ TD/SAP Inspection EF 02 Special

#### Material Control

- ☐ TD/SAP Inspection MC 02 Quarter 1
- ☐ TD/SAP Inspection MC 02 Quarter 2
- ☐ TD/SAP Inspection MC 02 Quarter 3
- ☐ TD/SAP Inspection MC 02 Quarter 4
- ☐ TD/SAP Inspection MC 02 Special

### Motivation

Choose one and enter exactly as it is shown.

- ☒ TD/SAP
- ☐ Special review ordered by the Division Head

### Description

This field should only be filled in when the Division Head calls a special inspection or when special directions are issued about entering information in this field, otherwise this field should be skipped.

### Frequency

Enter QR for the Quarterly inspections, Machine Shop should enter MN for their monthly inspections. Enter AH for special inspections called by the Division Head.

### Review Type

Enter code (number) 4 unless otherwise directed.

### Owned by, Agented by, Performed on

Select the value that identifies the name of the Group being reviewed and enter its short abbreviation name in all three fields, "Owned by," "Agented by," and "Performed on."

- ☒ TD/DT      TD Development and Test
- ☐ TD/EF      TD Engineering and Fabrication
- ☐ TD/MS      TD Machine Shop
- ☐ TD/MC      TD Material Control

**Scheduled Day, Month, Year**

Enter the date using the format shown here, 01-Jan-02.

Scheduled date: 05 12 6 02

Date                      Month                      Year

**Start Date**

Enter the date the inspection was started using the format shown here, 01-Jan-02.

Start Date: 12 6 02

Date                      Month                      Year

**End Date**

Enter the date the inspection was completed using the format shown here, 01-Jan-02.

End date: 12 6 02

Date                      Month                      Year

**Review Affiliates**

1. **Review Owner** - Enter the ESHTRK data entry person's information
2. **Review Performers** - Enter the review performers information on the lines with the appropriate title.

**Affiliates Information Chart**

| Fermi ID # | Name                              | Prf | Edt | Pub | Vld | Title                  |
|------------|-----------------------------------|-----|-----|-----|-----|------------------------|
| 13072N     | Review Owner<br>Emily Tan         | N   | Y   | Y   | Y   | Data Entry             |
|            | Review Performer                  | Y   | N   | N   | N   | Inspector              |
|            | Review Performer                  | Y   | N   | N   | N   | Inspector              |
| 4965       | Review Performer<br>Steve Goulet  | Y   | N   | N   | N   | Inspector              |
| 882        | Review Performer<br>A. J. Bianchi | Y   | N   | N   | N   | Building/Area Manager  |
|            | Review Performer                  | Y   | N   | N   | N   | Building/Area Manager* |
|            | Review Performer                  | Y   | N   | N   | N   | Building/Area Manager* |
|            | Review Performer                  | Y   | N   | N   | N   | Union Representative   |
|            | Review Performer                  | Y   | N   | N   | N   | Union Representative   |

\***Building/Area Manager** - The manager of the building or area being inspected.

**Technical Division  
Self-Assessment Program  
Quarterly ES&H Inspection Verification Form  
Inspection Area DT**

MIKE LAMM / #060

TD/SAP Quarterly Inspection Area DT 2002 - 2<sup>nd</sup>  
Year Quarter

FINDING  
I.D.#s:

=70660  
=70658  
=70659  
=70661  
=70662

| Real Property Identification System | Location Description                         | ESHTRK Location Short Name | Owned By | Inspection Completion Date |
|-------------------------------------|--|----------------------------|----------|----------------------------|
| # 800                               | Industrial Building 1 Main Floor             | TD/IND-1/MAIN-FLOOR        | DT       | 6/12/02                    |
| # 800                               | Industrial Building 1 Mezzanines             | TD/IND-1/MEZZANINES        | DT       | 6/12/02                    |
| # 807                               | Industrial Building 1A - Compressor Building | TD/IND-1A                  | DT       | 6/12/02                    |
| # 801                               | Industrial 1 Midway                          | TD/IND-1/MIDWAY            | DT       | 6/12/02                    |
|                                     |  |                            |          |                            |
|                                     |  |                            |          |                            |
|                                     |  |                            |          |                            |

We verify that all of the above Technical Division facilities in Area DT have received their quarterly inspection for the TD Self-Assessment Program.

Signed: [Signature]  
TD SAP Inspector

Date: 6/12/02

Signed: \_\_\_\_\_  
TD SAP Inspector

Date: \_\_\_\_\_

Signed: [Signature]  
TD/DT Building /Area Manager

Date: 06/12/02

Signed: \_\_\_\_\_  
TD/DT Building /Area Manager

Date: \_\_\_\_\_

# Technical Division Self Assessment Program Quarterly Inspection Form

Name/Fermi ID# STEVE GOULD / #4965

Quarter 2nd

Year 02

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| <b>FINDING TITLE</b><br>(Detailed description of finding)<br><br><u>IMPROPER STORAGE ON CABINETS ABOVE THE CONTROL ROOM.</u> | <b>DATE FOUND</b><br><u>6/12/02</u>  |  | <b>RISK ASSIGNMENT</b>   |   |  |
|  | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety<br><br><u>T</u> | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br><u>Minimal</u> | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Imme<br>Probably will occur i<br>May occur in time<br><u>Unlikely to occur</u> |   |  |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/<br><u>TD/IND-1/MEZZANINES</u> <u>#70658</u>             |  | ANSI<br>FERMI<br>NEC<br>(Circle one)                                       | NFPA<br><u>OSHA</u><br>Other:  | <b>Citation Agency/Reference Code</b><br>EXAMPLE: 1910 145 C<br><u>1910.176 B</u> |  |

**FINDING LOCATION DESCRIPTION**  
 (Exact place where finding occurred) OUTSIDE OF ROGER NEHAWG'S OFFICE.

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| <b>FINDING TITLE</b><br>(Detailed description of finding)<br><br><u>FOUND TECH SPRAY IN MEZZANINE BOOK RACK AND IMMEDIATELY PUT INTO PROPER STORAGE AREA</u><br><br><u>ENTERED AS NO APPARENT FINDINGS</u> | <b>DATE FOUND</b><br><u>6/12/02</u>  |  | <b>RISK ASSIGNMENT</b>   |  |  |
|  | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety<br><br><u>T</u> | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br><u>Minimal</u> | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Imme<br>Probably will occur i<br>May occur in time<br><u>Unlikely to occur</u> |  |  |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/<br><u>TD/IND-1/MEZZANINES</u> <u>#70659</u>   |  | ANSI<br>NFPA   | <b>Citation Agency/Reference Code</b><br>EXAMPLE: 1910 145 C   |  |  |

**FINDING LOCATION DESCRIPTION**  
 (Exact place where finding occurred) ABATED - DO NOT ENTER TO ESH/TKK

|   |   |  |  |  |  |
|---|---|--|--|--|--|
| <b>FINDING TITLE</b><br>(Detailed description of finding)<br><br><u>FOUND CLUTTER IN FRONT OF ELECTRICAL PANEL LOCATED IN THE COMMUNICATIONS ROOM. IT WAS REMOVED IMMEDIATELY</u><br><br><u>ENTERED AS NO APPARENT FINDINGS</u> | <b>DATE FOUND</b><br><u>6/12/02</u>   |  | <b>RISK ASSIGNMENT</b>   |  |  |
|   | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety<br><br><u>ABATED - DO NOT ENTER TO ESH/TKK</u> | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br><u>Minimal</u> | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Imme<br>Probably will occur i<br>May occur in time<br><u>Unlikely to occur</u> |  |  |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/<br><u>TD/IND 1- MAIN FLOOR</u> <u>#70660</u>   |   | ANSI<br>NFPA   | <b>Citation Agency/Reference Code</b><br>E: 1910 145 C   |  |  |

**FINDING LOCATION DESCRIPTION**  
 (Exact place where finding occurred) ABATED - KK

# Technical Division Self Assessment Program Quarterly Inspection Form

Name/Fermi ID# STEVE GULLIN/4965

Quarter 2<sup>nd</sup>

Year 02

|  |  |   |   |
|--|--|---|---|
| <b>FINDING TITLE</b><br>(Detailed description of finding)<br><p style="font-size: 1.2em;">Found A LADDER LEANING AGAINST THE EYE WASH STATION. IT WAS MOVED IMMEDIATELY.</p> <p style="text-align: right; margin-top: 20px;">✓ ENTERED AS NO APPARENT FINDINGS</p> | <b>DATE FOUND</b><br><p style="font-size: 1.2em;">12/12/02</p>   | <b>RISK ASSIGNMENT</b>  |   |
|  | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety<br><p style="font-size: 1.5em; text-align: center;">T</p> | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br><u>Minimal</u>  | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Immedi<br>Probably will occur in<br>May occur in time<br><u>Unlikely to occur</u> |
| <p>NOTE: If you circle any TWO of the Bold contact the TD ES&amp;H Group Immediately</p>   |  |   |   |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/<br><p style="font-size: 1.2em;">TD/IND-1A     #70661</p>  |  | Citation Agency/Reference Code<br>EXAMPLE: 1910 145 C<br><p style="font-size: 1.2em; margin-top: 10px;">ABATED - DO NOT ENTER TO ESHRK. K</p> |   |

|  |  |   |  |
|--|--|---|--|
| <b>FINDING LOCATION DESCRIPTION</b><br>(Exact place where finding occurred)  |  |   |  |
| <b>FINDING TITLE</b><br>(Detailed description of finding)<br><p style="font-size: 1.5em; text-align: center;">NO APPARENT FINDINGS ✓</p> | <b>DATE FOUND</b>  | <b>RISK ASSIGNMENT</b>  |  |
|  | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br>Minimal | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Immedi<br>Probably will occur in<br>May occur in time<br>Unlikely to occur |
| <p>NOTE: If you circle any TWO of the Bold contact the TD ES&amp;H Group Immediately</p>   |  |   |  |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/<br><p style="font-size: 1.2em;">TD/IND-1/MADWAY     #70662</p>      | ANSI          NFPA<br>FERMI        OSHA<br>NEC            Other:<br>(Circle one)                   | Citation Agency/Reference Code<br>EXAMPLE: 1910 145 C               |  |
| <b>FINDING LOCATION DESCRIPTION</b><br>(Exact place where finding occurred)  |  |   |  |

|  |  |   |  |
|--|--|---|--|
| <b>FINDING LOCATION DESCRIPTION</b><br>(Exact place where finding occurred)              |  |   |  |
| <b>FINDING TITLE</b><br>(Detailed description of finding)                                | <b>DATE FOUND</b>  | <b>RISK ASSIGNMENT</b>  |  |
|  | <b>FINDING TYPE</b><br>(Data entry persons: always enter "T" in this field<br>T - Technical Safety | <b>SEVERITY</b><br>(circle one)<br>High<br>Medium<br>Low<br>Minimal | <b>PROBABILITY</b><br>(circle one)<br>Likely to occur Immedi<br>Probably will occur in<br>May occur in time<br>Unlikely to occur |
| <p>NOTE: If you circle any TWO of the Bold contact the TD ES&amp;H Group Immediately</p> |  |   |  |
| <b>LOCATION</b><br>(Enter "Short Name" from atlas) EXAMPLE: TD/LAB2/                     | ANSI          NFPA<br>FERMI        OSHA<br>NEC            Other:<br>(Circle one)                   | Citation Agency/Reference Code<br>EXAMPLE: 1910 145 C               |  |





Fermilab  
Technical Division  
ES&H Group (MS 343)

**To:** SAP "OSHA" Inspectors  
**From:** Rich Ruthe  
**CC:** R. Sood / K. Kasules / Building Managers Committee Members  
**Date:** May 31, 2002  
**Re:** Recording Items Corrected on the Spot

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During the recent Tripartite Self-Assessment of the Technical Division's Integrated Safety Management program, outside reviewers commented about the lack of findings on our SAP quarterly inspection reports. They questioned whether the program remained effective, with the possibility of inspectors losing interest in looking for findings. These comments were discussed in the last Building Managers Committee meeting, and two points became clear:

- Without question, the quarterly "OSHA" inspections remain a vital part of Technical Division's Occupational Injury and Illness Reduction Program.
- Because of the effectiveness of our overall safety program, the inspectors are finding only minor violations that can be corrected on the spot.

The quarterly (monthly in the machine shops) OSHA inspections will therefore continue with the following minor change:

- Inspectors will record those violations found, but corrected on the spot, in the "Finding Title" box on the *SAP Quarterly Inspection Form*. For example, rather than writing "No Apparent Finding", you might write "Faulty extension cord found and removed from service", or "Found improperly stored flammable chemicals and returned them to flammable storage cabinet", and so forth.

As is the current practice, those violations/findings corrected on the spot will NOT be entered into ESHTRK. When outside reviewers looks at our inspection forms in the future, however, they will see a written record indicating that we do continue to find minor violations that are corrected on the spot. Thanks for your cooperation in this matter.

#### Distribution

Burk / Gould / Helis / Hess / JohaneK / Mumper / Rusy / Sorenson / Validis / Wokas



**Fermi National Accelerator Laboratory**

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**Technical Division  
Headquarters**

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**Self-Assessment Program**

**TD-2020**


**Version 2**

  
\_\_\_\_\_  
Authored, TD Quality Assurance Officer

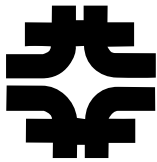
29-Oct-2001  
Date

  
\_\_\_\_\_  
Reviewed, TD Associate Division Head

10-29-2001  
Date

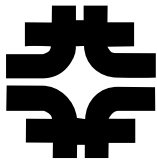
  
\_\_\_\_\_  
Approved, Technical Division Head

10/29/01  
Date



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## Technical Division Self-Assessment Program

**TD-2020**

Date: 29-Oct-2001

Version: 2

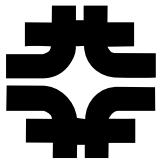
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### Revision History

| Version | Date        | Section No. | Specifics  |
|---------|-------------|-------------|--|
| 1       | 13-Nov-1995 | All         | Initial release  |
| 2       | 29-Oct-2001 | All         | Updated to reflect organizational and policy/procedure changes |
|         |             |             |  |

### Controlled Distribution

Technical Division Library  
Senior Safety Officer  
Quality Assurance Officer



## 1.0 Introduction

The Technical Division mission is:

“The development, design, fabrication or procurement, and testing of accelerator and detector components.”

Due to the level of complexity of the components that are fabricated in the Technical Division, it was decided to implement a formal, i.e. documented, program that describes the practices used by the division to assure the quality of our work. The purpose of the quality program is to aid the division in assuring the quality of our work, while encouraging the creativity of the people doing the work. By creating and maintaining our quality system, we are able to see and understand our organization as a *system*, not as separate groups working independently.

The Self-Assessment Program provides management with feedback on the *adequacy, implementation, and effectiveness* of the division's management systems. The assessments serve as a conduit for process verification, early detection of problems, improved processes, and new ideas. The value of an assessment is found in the improvement opportunities it identifies, as well as in the learning that takes place from doing the assessment, both for the auditor and the auditee.

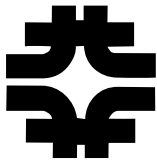
Technical Division assessments focus on systems and operations. This entails using fact-based observations as a basis for drawing conclusions about the health of the organization's systems, and the operations within those systems. The conclusions are reported in a way that can be used as lessons learned and to initiate long-term improvement. Since the focus is on improvement, auditors must be willing to think, to arrive at conclusions, and to report their findings and recommendations to management.

The Technical Division Self-Assessment Program is designed to meet the requirements of Laboratory policies and is based on, but not confined to, guidance contained in the Fermilab Self-Assessment Program Plan, as well as DOE G 414.1-1 Implementation Guide for use with Independent and Management Assessments.

## 2.0 Roles and Responsibilities

### 2.1 Headquarters

The Division Head has overall responsibility for the development and implementation of the TD Programmatic, ES&H and QA programs, and for the development of a Self-Assessment Program to evaluate these programs. The Division Head is supported in the development and assessment of these programs by line management, the ES&H Group, the QA Manager, and other resources as required.



1. By the first month of each quarter, a schedule of planned ES&H assessments for that quarter is created. The schedule identifies known internal and external ES&H assessments, as well as who is responsible for conducting the assessments.
2. On a quarterly basis, the Division Head submits a report to the Directorate, summarizing assessment activities that occurred within the division during the reporting period. Topics in the quarterly report may include, but are not limited to, information on future self-assessment plans, summaries of self-assessment activities, status of external findings, and concerns or lessons learned as a result of self-assessment activities. These reports are submitted by the 15<sup>th</sup> of April, July, October, and January. Refer to the Fermilab Self-Assessment Program Plan for more details.

The Division Head designates a member of the division management staff to develop and maintain the TD planned assessment schedule. The schedule is adjusted as necessary to ensure that assessment activities correspond with current division operations and needs.

A member of the TD Headquarters staff is assigned the responsibility for monitoring the status of external findings in ESHTRK to ensure that corrective actions are completed in a timely manner. Periodic status reports are presented to the department heads and the Division Head.

## **2.2 ES&H Group**

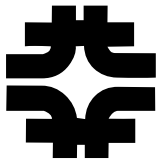
The functional responsibilities of the TD ES&H group are defined in the Technical Division Quality Management Program TD-2010, Section 1 (under responsibilities for the Support Department, section 1.5). In its ES&H assessment function, the ES&H group monitors the work environment in TD facilities through operational assessments, quarterly walk-throughs, and other periodic assessments such as ergonomic and industrial hygiene assessments. These processes help to ensure that TD workspaces conform to established Fermilab ES&H policies and practices in accordance with applicable standards and regulations. The ES&H group also investigates and writes accident and illness reports, and provides advice and guidance on ES&H matters to division management as appropriate.

## **2.3 QA Manager**

The QA Manager assists division management in the preparation of self-assessment programs and procedures and in evaluating the results of self-assessments performed on division operations.

## **2.4 Departments**

Departments are encouraged to perform periodic self-assessments of their work processes to assess performance and identify areas where improvements can be made to increase quality and efficiency. In addition to the quarterly OSHA-type inspections, periodic assessments should be conducted to review the status and



implementation of work processes, calibration programs, maintenance programs, quality assurance programs, and other programs and plans which are critical to the successful and effective operation of the department.

Department heads submit an assessment summary report to the Division Head on or before the 10th of January, April, July and October. This report summarizes assessment activities that occurred in the department during the previous quarter. The report includes discussion of any reviews of documented safety procedures, notable safety activities, lessons learned, and other information deemed appropriate by the department head.

The department heads are also required to submit a programmatic quarterly report to the Division Head by the 15th of January, April, July and October. These reports summarize the budget spending profile, programmatic issues and any unusual circumstances or constraints within their departments.

## **2.5 *Internal / External Safety Committees***

At the request of the Division Head, ad-hoc committees are formed to review complex systems such as process tooling, cryogenic vessels, and cryogenic installations. For specialty assignments, the Division Head may also contract with an outside consultant or organization. As part of a committee's charge, the Division Head requires that the results of the assessment be summarized in a written report that can be reviewed and acted upon by the appropriate personnel.

Periodically, external agencies will perform safety reviews of division systems or operations. The results of such activities are typically presented to the Division Head in written form. Before Operational Readiness Clearance is granted by the Division Head, the Division Head reviews these documents and takes appropriate action to correct noted deficiencies.

## **3.0 Auditor Requirements**

The Technical Division recognizes the need to have skilled and qualified personnel available to participate as assessment team members in order to achieve the level of performance desired in the division's self-assessment program. Training and qualification requirements have been established for the OSHA-type inspections and the independent QA self-assessment activities. Special training and qualification requirements are not defined for all other assessments as it is held that the participating personnel, through their education and work experience, are technically competent to conduct the assessments.

### **3.1 *OSHA-Type Inspections***

OSHA-type inspections are described in section 4.4 of this document. Personnel conducting this self-assessment activity must satisfactorily complete training course *TD 001910 OSHA Review of 29 CFR 1910*, when it is periodically held under the direction of TD ES&H.



### 3.2 *Independent Quality Assurance Self-Assessments*

Independent QA assessments are described in section 4.2 of this document.

Personnel conducting this self-assessment activity are trained and qualified to the level necessary to perform their assigned role on the assessment team. Such roles include, but are not limited to, Lead Auditor, Team Auditor, Subject Matter Expert, and Observer.

The Lead Auditor is responsible for leading the audit process activities, for approving the non-conformances identified by Team Auditors, and for issuing the audit report. Lead Auditors should also use audits to help develop the skills of the Team Auditors.

The Team Auditors are responsible for carrying out an objective audit, and for documenting findings with objective evidence.

The manager initiating the assessment appoints Subject Matter Experts (SME). The role of a SME is to assist the assessment team in technical issues related to the assessment subject. The appointing manager is responsible for ensuring that the individual selected as a SME is skilled and knowledgeable in the discipline being assessed.

Observers accompany an assessment team to observe the actions and methods of the team and perform no active role in the assessment process. As such, Observers require no special qualifications or training.

Personnel participating as a Team or Lead Auditor must meet the following criteria:

#### **Team Auditor**

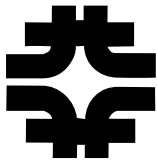
To initially qualify as a Team Auditor requires the successful completion of an internal or external auditor training course or having a certification in a quality field (e.g. CQT, CQI, CQIA).

To maintain qualification as a Team Auditor requires participation in an assessment at least once every two years (this can include any type of assessment), or maintaining the appropriate certification.

#### **Lead Auditor**

To initially qualify as a Lead Auditor requires either the successful completion of a sanctioned Lead Auditor course (e.g. a 5-day Lead Assessor training, ASQ Certified Quality Auditor certification), or participation in 5 audits as a team auditor.





To maintain qualification as a Lead Auditor requires participation as a Lead Auditor in an assessment at least once every two years (this can include any type of assessment), or maintaining the appropriate certification (e.g. CQA, CQE).

#### 4.0 Assessments

The division's self-assessment activities are organized into three different categories: management, independent, and worker. A general description of each is as follows:

*Management Assessment* - Management assessments are used to look at the total picture of how well our management systems meet our customer's requirements and expectations. The emphasis of a management assessment is on management issues that affect performance processes such as: planning, qualification, training, staffing, organizational interfaces, communication, cost control, and mission objectives. The purpose of this type of assessment is to identify management aspects of performance and make improvements through an introspective analysis to determine if the management infrastructure is properly focused on achieving the desired results. Management assessments can range from very informal to very formal.

Examples are:

- Division Head assessments
- Department Head assessments
- Line management assessments

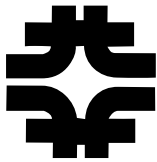
*Independent Assessment* - Independent assessments evaluate the performance of work processes with regard to requirements and expectations for achieving the mission and goals of the organization. The focus of independent assessments should be on the items and services produced and associated processes with the objective of improving the product/service performance and process effectiveness. (Independence is defined as not having direct responsibilities in the areas being assessed.) Independent assessments can range from very informal to very formal.

Examples are:

- ES&H Group assessments
- OSHA-style inspections
- Quality Assurance assessments

*Worker Assessment* - Worker assessments simply involve the worker routinely comparing the processes and products and services to defined expectations. This includes ensuring that the right products and services are being provided, the defined processes and procedures are being followed, and customer needs are being satisfied. Worker assessments are very informal.

Questions to ask and answer:



- How do I do this work?
- How do I know I am doing this work correctly?
- How do I know that the outcome is free of defects?
- What do I do if I have a problem?
- What could be done to make this work better?

Whenever possible, evaluations are made based on measurable performance objectives and/or indicators that are either defined in ES&H and/or quality system documentation, other governing documents, or that are established by the assessing organization or team based on some set of pre-established criteria. The Division Head is committed to providing the resources necessary for division organizations to establish sound programmatic, safety and quality assurance programs and for performing competent self-assessments of their operations, activities, programs and procedures.

#### **4.1 *Division Head Assessments***

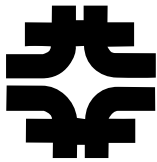
On a quarterly basis, the Division Head conducts a performance-based assessment on one of the division's departments. Through this process, the performance of all major organizational units is formally assessed. The Division Head assessment emphasizes division management's direct contact and involvement with conditions in the work place. The objective of the assessment is to evaluate the performance of the department with particular emphasis on programmatic issues, ES&H and the quality of work performance.

The assessment team typically includes the Division Head and other members of the Headquarters staff, the Department Head and other key departmental staff, selected members of the ES&H Group, the QA Manager, and others that the Division Head deems appropriate for the department being assessed.

The Division Head prepares an assessment outline in consultation with members of the assessment team that generally includes provisions for the following:

1. Review of the status of personnel training records;
2. Review of the results of past internal and external assessment findings, paying particular attention to open findings and overdue milestones;
3. Review of unusual occurrences, injuries, accident records, etc. that have occurred since the last assessment;
4. Review of departmental self-assessment activities, including assessment results and lessons learned by the department;
5. Review of the status of programs and projects assigned to the department;
6. A walk-through inspection of the department's work areas, which generally includes observations of operations and work processes and an inspection of facility conditions.

The assessment begins with an opening meeting in which the Division Head discusses the assessment topics with the department being assessed. Attendees at



the opening meeting typically include the Department Head's first line supervisors, building manager(s), and others at the Department Head's discretion.

At the conclusion of the opening meeting, the assessment team conducts a walk-through of the department's work areas. The walk-through includes discussion with area personnel that provides a forum for feedback to division management on issues that may require division-level decisions and/or resource allocation. The walk-through also includes an inspection of work areas for non-compliance to applicable DOE orders, Fermilab policies, and other codes and standards. The condition of facilities is reviewed for impact on department operations, safety, quality of work environment, and effective utilization of workspace. The walk-through also provides the opportunity to focus on difficult compliance issues and facility maintenance needs.

After the area walk-through, a closing meeting may be held. Those individuals who attended the opening meeting usually attend this meeting. If areas of particular interest or need were uncovered during the walk-through, then individuals with special knowledge of these areas may also be requested to attend. The objectives of the closing meeting are to review the results of the area walk-throughs and discuss significant aspects of the department's programmatic issues, ES&H and quality performance. The effectiveness of the department's self-assessment activities is reviewed and action plans for dealing with difficult issues are discussed.

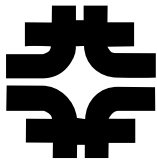
### **Output:**

After the assessment is completed a draft report is issued to the Department Head for review. The report covers prominent features of the assessment, including notable practices, findings, concerns, observations, recommendations for improvement, and other pertinent issues. Once the factual accuracy review is completed, the final report is distributed to all TD department heads in order to share notable practices and lessons learned across the division.

Following the issuance of the assessment report, the assessment is entered into ESHTRK. The Department Head is responsible for correcting and tracking each finding to closure.

## **4.2 Independent QA Assessments**

At least once per year, the Division Head, or another division manager, identifies a need to assess the performance of certain elements or operations within the division (e.g. projects). When this occurs, the initiating manager consults with the QA Manager and other members of division management to define the scope and nature of the assessment. An assessment team is formed by selecting a lead auditor and an appropriate number of team auditors. Subject matter experts may be assigned to the team to assist in technical aspects of the review. Supervisors of personnel identified to serve on the assessment team are consulted prior to the commissioning



of the team to ensure that an individual's participation does not conflict with other ongoing activities or operations.

Each assessment is conducted using recognized assessment techniques. The lead auditor is responsible for organizing the assessment team and for providing a briefing to the team on the specifics of the assessment. The lead auditor prepares an assessment plan prior to the start of the assessment and is encouraged to include the assessment team in the preparation of the plan.

**Output:**

Following the assessment, the results of the assessment are summarized in a report that is submitted to the assessed organization for factual accuracy review. Upon completion of this review, the final report is submitted to the initiating manager for review, distribution and follow-up action.

**4.3 ES&H Operational Reviews**

The ES&H group conducts formal operational assessments (also called safety reviews) of the division for compliance with requirements set forth in the Fermilab ES&H Manual, Fermilab Radiological Control Manual, other applicable laboratory documents, DOE orders, codes, and standards.

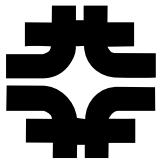
**Output:**

A report summarizing the results of each operational assessment is prepared and submitted to the Division Head for review and action. The report includes a summary of the assessment objectives and results and identifies deficiencies and any areas of concern. The report also makes recommendations on possible courses of action that will correct identified deficiencies and concerns in the spirit of improving the overall environment of Technical Division work places.

**4.4 OSHA-type Inspections**

Quarterly "OSHA-type inspections" are carried out by qualified TD personnel on all buildings and outdoor areas for which the TD has landlord responsibility. Quarterly inspections are also carried out in satellite machine shops operated under TD control. Work areas are reviewed for ES&H practice and compliance to all applicable orders, codes, policies, and standards.

By the 20<sup>th</sup> day of each quarter, inspectors are appointed and assigned to specific inspection areas by TD Headquarters. Inspection assignments are recorded on the TD Quarterly SAP Inspector Assignment form and approved by the Division Head. Each inspector is randomly selected from the TD OSHA-type inspector pool, and is assigned to inspect a work area other than their own to help ensure that work areas are being reviewed by "fresh eyes."



Assignments are distributed to inspectors through their Department Head. Inspectors work with the contact person of the area to be inspected to set up inspection schedules. Area contact persons are identified on the Inspector Assignment Form. The walk-through portion of the inspection process is to be completed by the 20<sup>th</sup> day of the second month of the quarter.

During the area inspections, the inspector is accompanied at a minimum by the area contact person. Work area supervisors are also encouraged to attend inspections of their areas to clarify questions the inspector may have and to facilitate correction of deficiencies. Others may be invited to participate at the request of review participants.

**Output:**

After the inspection is complete, the inspection report is forwarded to the ES&H Group for entry into ESHTRK. Data entry is completed within one calendar week of the completion of the inspection. Once entered, findings are automatically assigned to department heads based on the location of the finding.

Department heads are responsible for tracking findings through closure. Questions regarding the validity of findings are addressed to the ES&H Group for resolution. The Department Head assigns responsibility for the abatement of findings to individuals within his/her organization and is responsible for providing that person with the resources necessary to accomplish abatement in a timely manner.

**4.5 *Tripartite Assessments***

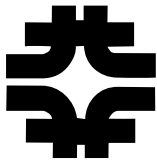
The Tripartite Assessment Program is the primary vehicle for implementing the Fermilab Self-Assessment Program, and is described in the Fermilab Self-Assessment Program Plan (SAPP). The groups participating in the Tripartite assessments of the Technical Division are the TD management, the ES&H Section and the DOE Fermi Area Office. The TD fills the role of either the Lead assessor or the Participant (Team) assessor for all Tripartite assessments of the TD.

**Output:**

Results from the Tripartite assessments are published using the "Self-Assessment Report" template (found on the ES&H Section web site) and are recorded and tracked in ESHTRK.

**4.6 *Other ES&H Assessments***

To review the division's ES&H program, the ES&H Group conducts "quarterly walk-through audits" of various aspects of areas where TD employees are working. The audits are conducted during the third month of each quarter. The subject of these audits is chosen by the ES&H Group in consultation with division management and reflects current division activities or operations. A member from



the management audit pool accompanies the ES&H Group auditor on the walk through. These individuals are management and supervisory personnel that are focused on auditing employee activities and behavior for safe working practices. The management auditors are assigned a work area other than their own.

In addition to the quarterly wall-through audits, members of the ES&H Group perform periodic assessments in the areas of radiological control, waste management, ergonomics, and industrial hygiene.

**Output:**

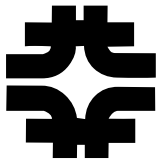
Results of the quarterly walk-throughs and other periodic assessments are provided in memos and other forms of communication to appropriate departmental staff and are entered into ESHTRK.

## **5.0 Response to External Assessment Activities**

Periodically, external agencies and organizations assess the performance of division programs and operations. Results of these assessments are typically reported to the Division Head. As required, the Division Head responds to external assessments.

Findings generated from external assessments are entered into ESHTRK by TD ES&H and are assigned to division personnel based on the nature of the non-compliance. The person to whom a finding has been assigned is responsible for the prompt correction of the non-compliance. For more difficult or complicated issues, the responsible party develops a corrective action plan, with appropriate milestones, to resolve the non-compliance. The corrective action plan is submitted to the Division Head for concurrence before implementation. Changes to the corrective action plan are submitted to the Division Head for concurrence before the request for modification is made to the assessing organization.

As appropriate, progress made in meeting milestones and closing out assessment findings is evaluated by division management. The person responsible for the corrective action plan reports, to the Division Head, any unresolved problems associated with implementation. The Division Head responds as required and provides assistance and resources as necessary to address and resolve problem areas.



*Fermilab Policy Manual*

<http://www.fnal.gov/directorate/documents.html> ("Fermilab Director's Policy Manual")

*Fermilab ES&H Manual*

[http://www-esh.fnal.gov/home/esh\\_home\\_page.html](http://www-esh.fnal.gov/home/esh_home_page.html) ("Manuals and Procedures")

*Fermilab Self-Assessment Program Plan*

<http://www-esh.fnal.gov/dirsapp/SAPP.html>

*ESHTRK*

[http://www-esh.fnal.gov/home/esh\\_home\\_page.html](http://www-esh.fnal.gov/home/esh_home_page.html) ("Assessments and ESHTRK")

*ES&H Section Home Page*

[http://www-esh.fnal.gov/home/esh\\_home\\_page.html](http://www-esh.fnal.gov/home/esh_home_page.html)

*Appendix I of the DOE/Fermilab Prime Contract (DOE Orders)*

Available in hard-copy from the Directorate ([bobgrant@fnal.gov](mailto:bobgrant@fnal.gov)).

*TD Policies and Procedures Manual - includes the TD Quality Management Program TD-2010*

Hard-copy distributions in the headquarters library and the Senior Safety Officer. Documents are also being migrated to the TD home page <http://www-td.fnal.gov/> - click on the "Tech Division Info" tab.

*DOE G 414.1-1 Implementation Guide for use with Independent and Management Assessments*

<http://www.directives.doe.gov/pdfs/doe/doetext/neword/414/g4141-1a.pdf>

*Occupational Safety & Health Administration (OSHA) - Title 29 CFR*

[http://www.osha-slc.gov/OshStd\\_toc/OSHA\\_Std\\_toc.html](http://www.osha-slc.gov/OshStd_toc/OSHA_Std_toc.html)